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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/729,989	12/06/2000	Kentaro Nakada	HIG05 001	7372
7590	06/03/2004		EXAMINER	
DUANE MORRIS LLP 1667 K STREET, N.W. SUITE 700 WASHINGTON, DC 20006			NATNAEL, PAULOS M	
			ART UNIT	PAPER NUMBER
			2614	
DATE MAILED: 06/03/2004				

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Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.	NAKADA ET AL.
Examiner	Art Unit
Paulos M. Natnael	2614

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) Responsive to communication(s) filed on 14 May 2004.  
2a) This action is FINAL.                    2b) This action is non-final.  
3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) Claim(s) 1-4 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) Claim(s) \_\_\_\_\_ is/are allowed.  
6) Claim(s) 1-4 is/are rejected.  
7) Claim(s) \_\_\_\_\_ is/are objected to.  
8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) The specification is objected to by the Examiner.  
10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) All    b) Some \* c) None of:  
1. Certified copies of the priority documents have been received.  
2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) Notice of References Cited (PTO-892)  
2) Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.  
5) Notice of Informal Patent Application (PTO-152)  
6) Other: \_\_\_\_\_.

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claim 1-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shimakawa et al, U.S. Pat. No. 6,452,644.

Considering Claim 1, Shimakawa disclose the following claimed subject matter, note;

a) the claimed broadcasting a reception screen *broadcasting* and a computer executable program for controlling the sound suited to said screen to a receiver in a data broadcasting band in television broadcasting, and also *broadcasting in one channel broadcast contents of plural entertainment programs in the sound broadcasting band usually to the receiver, and, at the receiver, selecting one desired entertainment* program from the plural entertainment programs by the computer executable program already received, and displaying on the screen of the receiver and delivering the sound of this screen *is met by Fig. 3, which is a receiver for receiving a data broadcast in the TV data multibroadcast sound subcarrier system.*

c) computer executable program, is implied by the disclosure of Shimakawa et al. where the *control information data itself maybe specified as a program*, and the program would

be executed by the system's microprocessor 10, which can be any type computer or processor.

*Except for;*

*b) the claimed broadcasting computer executable program for controlling the sound suited to this screen to a receiver;*

Regarding b), Shimakawa et al. disclose a method of controlling reception in data broadcast receiver and transmitting electronic program guide (EPG) as well as other programs. The reference of Shimakawa et al. does not specifically disclose "a computer executable program for controlling the sound suited to this screen". However, Shimakawa disclose "A TV data broadcast system... The system allows data reception by mobile receivers and uses data signal subcarriers 4.5 fH and 7.5 fH (fH=15.73 kHz, the horizontal synchronizing pulse frequency) within a sound signal band of a television signal as the transmission path. The terrestrial data broadcast system provides programs such as: Electronic mail service; News, such as, newspapers, magazines, TV programs and others... (col. 1, lines 14-24)

Furthermore, Shimakawa et al. disclose that "reception control information is broadcast which specifies the broadcasting time of specific programs" (col. 3, lines 26-27) and "It should further be noted that the reception control information data itself maybe specified as a program, the program number identifying the reception control information broadcast." (col. 5, lines 8-13) [emphasis added]

Therefore, it would have been obvious to the skilled in the art at the time the invention was made to modify the system of Shimakawa by adding a control information program specifically geared towards the sound or audio for the screen, in order to easily and unambiguously control the sound information in the screen and information data that has been transmitted along with the broadcast television signal.

Considering claim 2, in a broadcasting system for television broadcasting, a method comprising the steps of: at the transmitter, broadcasting a reception screen and a computer executable program for controlling the sound suited to this screen to a receiver by using data broadcasting band; *broadcasting in one channel broadcast contents of plural entertainment programs in the sound broadcasting band; at the receiver, selecting a desired entertainment program from the broadcast contents sent in the sound broadcasting band using the received computer executable program, and displaying on the screen and providing sound to the reception screen.*

Claim 2 is a method of claim 1 and thus claim 2 is rejected for the same reasons as in claim 1;

Considering claim 3, wherein the broadcast contents of plural programs contain video signals and audio signals, is met by the television signal receiver in Fig.5 which includes video decoder to decodes video/image signal and by the well-known fact that TV broadcast receivers, by definition, comprising video as well as audio signals.

Considering claim 4, wherein the audio signals are separated and reproduced using the received program;

Regarding claim 4, Shimakawa discloses that the reception control information data itself may be specified as a program, (as mentioned above in connection to rejection of claim 1), the program number identifying the reception control information. Therefore, it would have been obvious to the skilled in the art at the time the invention was made to modify the system of Shimakawa by specifying the control information data to control the separation and reproduction of the audio signals, so that the user can reproduce the sound or audio as desired.

### ***Response to Arguments***

3. Applicant's arguments filed May 14, 2004 have been fully considered but they are not persuasive. Response follows:

#### **Applicant's Argument**

None of the art cited by the examiner discloses transmitting a computer readable program in the data broadcasting band to select one of a plurality of entertainment programs in a single channel of the sound broadcasting band for display on a reception screen. For example, Shimakawa is directed to reducing power consumption during the broadcasting of television signals....It is clear that the control information data or program of Shimakawa is used to control the internal operation of the receiver to reduce

power consumption. There is simply no disclosure of the transmission of computer readable program to select one of plural programs transmitted in a single channel of a sound broadcasting band.

Examiner's Response

Shimakawa et al. disclose a method of controlling reception in data broadcast receiver, and teach transmitting electronic program guide (EPG) and other programs. The reference of Shimakawa et al discloses that in a TV data broadcast system... "The system allows data reception by mobile receivers and uses data signal sub-carriers 4.5 fH and 7.5 fH (fH=15.73 kHz, the horizontal synchronizing pulse frequency) within a sound signal band of a television signal as the transmission path. The terrestrial data broadcast system provides programs such as: Electronic mail service; News, such as, newspapers, magazines, TV programs and others... (col. 1, lines 14-24) Furthermore, Shimakawa et al. disclose that "reception control information is broadcast which specifies the broadcasting time of specific programs" (col. 3, lines 26-27) and that "It should further be noted that the reception control information data itself maybe specified as a program, the program number identifying the reception control information broadcast." [Emphasis added] (col. 5, lines 8-13) The control information which could be a program is transmitted from a broadcaster. The control program is executed by the microprocessor which is a computer and which controls the overall operation of the system of Shimakaw. Specifically, the Shimakawa reference discloses a "TV data multibroadcast sound subcarrier system". (col. 1, lines 14-43, and col. 3,

lines 55-67) The system certainly has the capability to select one desired program from the combined image and sound mixed signals of plural programs by the program already received among the received data in multibroadcast sound system.

Furthermore, the feature of power consumption reduction is a feature that results from the method of control specified. In other words, the method of controlling the reception of data allows the system to reduce power consumption. This simply is an additional benefit of the system of Shimakawa et al, and it does not mean that the "program" is not a computer readable program. These are two different issues and have nothing to do with each other. Therefore, the argument that "There is simply no disclosure of the transmission of computer readable program to select one of plural programs transmitted in a single channel of a sound broadcasting band" is unpersuasive.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Paulos M. Natnael whose telephone number is (703) 305-0019. The examiner can normally be reached on 9:00am - 5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Miller can be reached on (703) 305-4795. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

PMN  
May 27, 2004

  
MICHAEL H. LEE  
PRIMARY EXAMINER

*PMN*